

Isotope  $\rightarrow$  different # of  $n^0$

$p^+$   $\rightarrow$  proton

$n^0$   $\rightarrow$  neutron

$e^-$   $\rightarrow$  electron

Boron-11

atomic name - mass number  
 $= p^+ + n^0$

B  $p^+ \rightarrow 5$

$$\text{mass\#} = p^+ + n^0$$

atomic #  $\rightarrow 5$

$$n^0 = \text{mass\#} - p^+$$

$n^0 \rightarrow 6$

Carbon-12

C    6     $p^+ = 6$      $n^0 = 6$      $e^- = 6$   
neutral

## Atomic Structure Practice:

Boron - 11      B      5      5

$$e^{-} = 2 + (-5) = -3$$

$$+2 = 5 + e^{-}$$

$$\text{Charge} = p^{+} + e^{-}$$

$$\cancel{0} = +5 + (-5)$$

(neutral atom)

$$\text{mass number} = p^{+} + n^{0}$$

$$n^{0} = \text{mass number} - p^{+}$$